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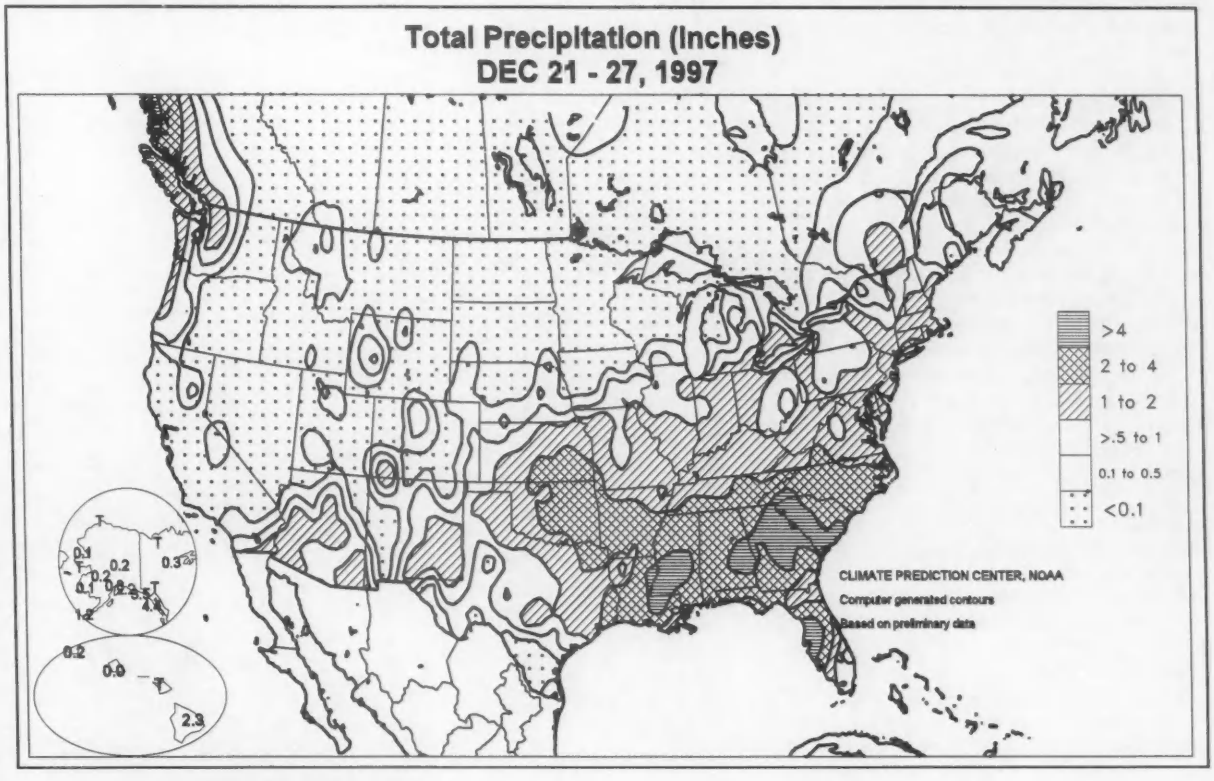
WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

U.S. DEPARTMENT OF AGRICULTURE
National Agricultural Statistics Service
and World Agricultural Outlook Board



HIGHLIGHTS

December 21 - 27, 1997

Wetness across the **Southeast**, into its 11th week, intensified due to a three-storm barrage across the Nation's southern tier. The storms also dumped heavy snowfall from the **Southwest** to the **Northeast**. On the **northern Plains**, however, a 2½-month dry spell persisted, accompanied by temperatures averaging up to 20°F above normal. In contrast, very cold weather gripped areas along and near the **Continental Divide**, where weekly readings were as much as 12°F below normal. Farther west, lows dipped to freezing or below in **California's San Joaquin Valley** and in the vicinity of **Phoenix, AZ**.

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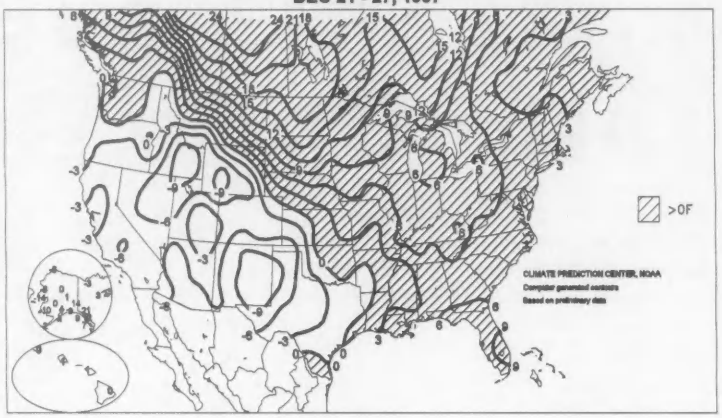
Early in the week, snow accumulated across parts of the **Southwest** as the first storm traversed the region. In **southern California**, above 6,000 feet, snow depths by Sunday afternoon reached 6 inches at **Big Bear Lake** and on **Mt. Laguna**. After additional heavy snowfall with the second storm's passage, December 25 depths stood at 48 inches at **Hannagan Meadow, AZ** and 33 inches in **Cloudcroft, NM**. Heavy snow also fell on the **central and southern Plains**, boosting midweek snow depths to 10 inches in the **Oklahoma Panhandle** at **Boise City** and **Guymon**, and 11 inches in **Dalhart, TX**. On December 23-24, **Dodge City, KS** netted 11.4 inches of snow, a 24-hour December record. In **Texas, Amarillo's** depth of 5 inches on December 25 was their greatest on that date since 1939.

In **Tucson, AZ**, monthly rainfall reached 2.88 inches by week's end, their 8th highest December total on record. Rains in **Florida** further padded December-record totals in **Jacksonville** (9.70 inches), **Tampa** (15.38 inches), and **Orlando** (12.58 inches). By December 27, year-to-date precipitation reached the second-highest level on record in **Shreveport, LA** (69.20 inches) and third-highest total in **Tampa** (67.52 inches). During the week, rainfall topped 4 inches in parts of **central Florida**, and in many areas from **eastern Louisiana** to the **Carolinas**. **Orlando** posted a daily-record rainfall (3.25 inches) on Saturday. Several tornadoes swept across the **Southeast** on Wednesday and again on Friday night (early December 27), resulting in scattered damage in **Alabama** and **Florida**.

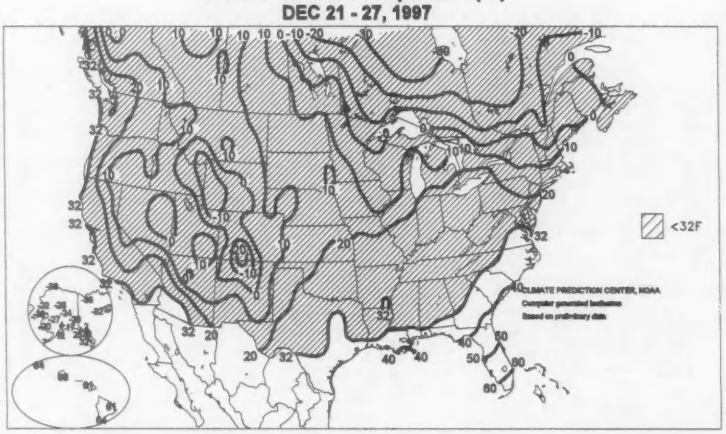
Farther north, the week's first storm produced very heavy snowfall on December 22-23 in parts of **New England**, including 23.5 inches in **Dracut, MA** and 20.5 inches in **Nashua, NH**. Additional snow fell in interior **New England** on December 25 and in parts of the **East** on December 27. Farther west, colder air spilled into the **Midwest**. On Saturday, a low of 9°F in **Moline, IL** was the first sub-10° reading of the season. Also on December 27, a 34-day dry spell ended in **Glasgow, MT**, but precipitation amounted to only 0.01 inches. On December 25, **Glasgow's** high reached 40°F, in sharp contrast to last year's high of -18°F (and low of -36°F). Other comparisons to last year on December 25 include the 2-inch snow depth in **Duluth, MN** (26 inches last year), and the month-to-date temperature departure of +8.7°F in **Huron, SD** (-7.4°F last year). In **Rochester, MN**, temperatures averaged below normal on 23 of November's 30 days, but above normal on 26 of December's first 27 days.

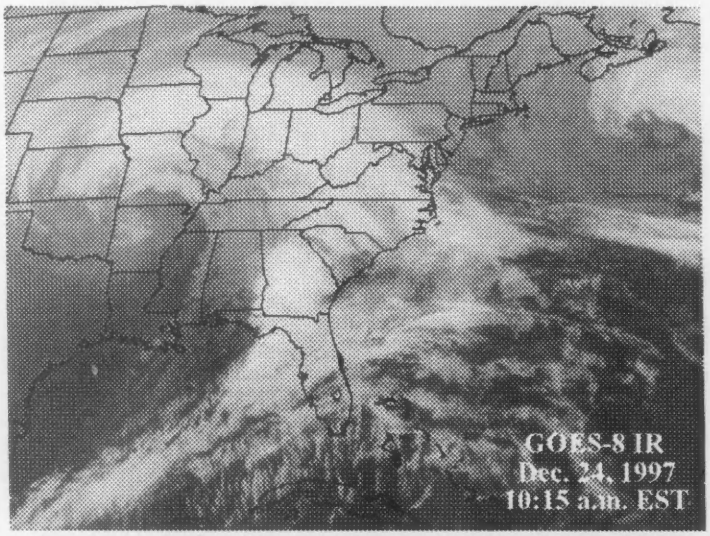
At week's end, a high-pressure system over the **interior West** induced chinook winds on the **northern Plains** and Santa Ana winds across **southern California**. In **Montana**, winds gusts in **Livingston** reached 76 mph on Saturday. The high also delivered cold weather to parts of the **West**. Daily-record lows were reported in **Eureka, CA** (30°F on Thursday) and **Alamosa, CO** (-23°F on Friday). Meanwhile, **Miami, FL** ended the week with consecutive daily-record highs (83 and 84°F).

Departure of Average Temperature from Normal (°F)
DEC 21 - 27, 1997



Extreme Minimum Temperature (°F)
DEC 21 - 27, 1997





Storm Train: The first of the week's three storms drifts east of New England after dumping heavy snow. A second low-pressure system spins across the Ozark Plateau, having blanketed the southern Plains and the Southwest with another significant snowfall.

National Weather Data for Selected Cities

Weather Data for the Week Ending December 27, 1997

Data Provided by Climate Prediction Center (301-763-8000 EXT. 7511)

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																	TEMP, °F		PRECIP.	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL	BIRMINGHAM	56	37	68	27	47	3	–	–	–	–	–	–	–	96	63	0	2	-	-
	HUNTSVILLE	51	38	61	28	44	3	–	–	–	–	–	–	–	94	73	0	1	-	-
	MOBILE	62	47	72	31	55	3	2.33	1.12	1.51	4.95	107	80.72	128	97	58	0	1	6	1
	MONTGOMERY	60	41	73	30	51	3	–	–	–	–	–	–	–	97	50	0	1	-	-
AK	ANCHORAGE	26	14	39	4	20	4	0.34	0.09	0.30	1.23	128	18.67	119	88	68	0	7	3	0
	BARROW	-14	-23	-9	-36	-19	-6	0.01	-0.02	0.01	0.07	64	5.54	129	76	72	0	7	1	0
	FAIRBANKS	-1	-14	7	-24	-7	1	0.20	0.01	0.16	2.05	277	7.56	70	85	74	0	7	2	0
	JUNEAU	41	36	45	29	39	12	–	–	–	–	–	–	–	99	86	0	1	-	-
	KODIAK	38	21	41	12	29	-1	1.10	-0.51	0.59	4.18	71	61.30	92	90	64	0	7	6	1
	NOME	-2	-14	5	-30	-8	-14	0.04	-0.15	0.04	0.49	66	17.30	117	78	67	0	7	1	0
AZ	FLAGSTAFF	31	12	46	-8	22	-7	–	–	–	–	–	–	–	90	57	0	7	-	-
	PHOENIX	55	40	62	33	47	-6	–	–	–	–	–	–	–	90	45	0	0	-	-
	PRESCOTT	40	20	52	10	30	-6	1.11	0.75	0.66	2.47	179	16.57	86	91	56	0	7	3	1
	TUCSON	52	35	59	29	43	-7	–	–	–	–	–	–	–	89	47	0	2	-	-
	YUMA	59	42	63	38	50	-5	2.21	2.10	1.19	2.79	688	7.90	255	80	31	0	0	2	2
AR	FORT SMITH	43	37	47	26	40	2	2.23	1.62	1.40	4.41	162	40.81	100	95	77	0	2	4	2
	LITTLE ROCK	48	37	52	30	43	2	2.48	1.46	1.55	3.65	87	59.11	121	93	64	0	1	4	2
CA	BAKERSFIELD	60	31	66	28	46	-6	0.00	-0.14	0.00	1.23	232	6.08	109	90	59	0	5	0	0
	EUREKA	–	–	–	–	–	–	–	–	–	4.73	78	–	–	–	–	-	-	-	-
	FRESNO	48	30	62	27	39	-5	0.00	-0.33	0.00	1.13	93	8.02	78	97	62	0	5	0	0
	LOS ANGELES	62	44	65	39	53	-3	0.00	-0.39	0.00	4.38	308	12.34	105	52	27	0	0	0	0
	REDDING	54	32	59	25	43	-1	0.01	-1.25	0.01	3.32	70	35.31	109	75	31	0	4	1	0
	SACRAM/MCCLELL	55	34	59	27	45	–	0.00	–	0.00	2.45	–	15.44	–	94	42	0	3	0	0
	SAN DIEGO	62	44	64	41	53	-4	0.46	0.10	0.46	1.37	99	6.74	69	88	34	0	0	1	0
	SAN FRANCISCO	56	42	57	37	49	0	0.00	-0.74	0.00	5.27	200	21.74	113	75	48	0	0	0	0
CO	ALAMOSA	21	-9	27	-23	6	-9	0.12	0.03	0.05	0.22	54	7.74	104	90	65	0	7	4	0
	CO SPRINGS	38	17	48	12	27	-2	–	–	–	–	–	–	–	88	41	0	7	-	-
	DENVER	32	17	42	14	25	-5	0.15	0.01	0.13	0.60	105	20.85	138	84	54	0	7	2	0
	GRAND JUNCTION	34	15	44	8	24	-2	0.04	-0.10	0.04	0.15	28	13.23	154	85	54	0	7	1	0
	PUEBLO	38	20	56	10	29	-1	0.04	-0.04	0.02	0.42	111	14.38	129	89	55	0	7	3	0
CT	BRIDGEPORT	41	31	49	20	36	4	1.53	0.76	0.76	2.40	78	35.99	87	81	52	0	4	5	2
	HARTFORD	37	24	48	12	30	3	1.28	0.42	0.83	1.83	48	38.29	88	88	58	0	6	3	1
DC	WASHINGTON	47	36	55	34	42	4	1.10	0.41	0.37	1.50	55	33.57	88	93	64	0	0	4	0
DE	WILMINGTON	45	31	56	24	38	5	1.59	0.82	0.53	2.27	74	–	–	82	50	0	5	5	1
FL	DAYTONA BEACH	74	60	81	48	67	8	2.98	2.38	1.76	7.79	349	54.70	115	100	77	0	0	4	2
	JACKSONVILLE	69	53	78	42	61	7	0.57	-0.08	0.19	9.81	421	57.24	112	98	75	0	0	6	0
	KEY WEST	80	73	82	67	76	6	0.34	-0.10	0.21	4.35	246	39.17	100	95	82	0	0	3	0
	MIAMI	82	70	84	61	76	8	0.80	0.39	0.79	4.86	302	70.01	126	97	74	0	0	2	1
	ORLANDO	77	63	83	50	70	9	–	–	–	–	–	–	–	98	78	0	0	-	-
	TAMPA	75	63	79	50	69	8	6.27	5.77	4.17	15.38	814	67.52	155	99	66	0	0	4	3
	VALPARAISO/EGLIN	64	51	75	36	57	6	1.85	0.86	0.83	3.29	90	63.57	103	95	65	0	0	4	2
	WEST PALM BEACH	82	68	86	59	75	9	0.63	0.13	0.63	5.00	227	61.19	101	95	69	0	0	1	1
GA	ATHENS	54	41	66	31	48	4	–	–	–	–	–	–	–	98	70	0	1	-	-
	ATLANTA	53	40	59	29	46	4	–	–	–	–	–	–	–	98	73	0	1	-	-
	AUGUSTA	59	42	68	37	51	5	–	–	–	–	–	–	–	96	68	0	0	-	-
	COLUMBUS	59	44	64	32	51	4	–	–	–	–	–	–	–	97	71	0	1	-	-
	MACON	59	42	66	32	50	3	–	–	–	–	–	–	–	99	69	0	1	-	-
	SAVANNAH	64	45	73	36	54	4	–	–	–	–	–	–	–	99	71	0	0	-	-
HI	HILO	81	64	83	61	72	0	2.32	-0.20	0.93	8.57	80	132.53	104	95	64	0	0	7	1
	HONOLULU	82	67	84	65	75	1	0.04	-0.84	–	0.36	11	19.99	93	85	53	0	0	-	0
	KAHULUI	83	65	84	61	74	1	0.04	-0.75	0.04	0.84	30	–	–	88	55	0	0	1	0
	LIHUE	77	68	78	64	73	0	0.16	-1.03	0.06	0.89	20	–	–	85	70	0	0	4	0
ID	BOISE	35	19	39	15	27	-2	0.00	-0.30	0.00	0.72	61	11.13	94	87	56	0	7	0	0
	LEWISTON	38	29	46	22	33	0	0.08	-0.20	0.04	0.64	60	15.59	126	82	61	0	6	2	0
	POCATELLO	21	6	29	1	13	-10	0.04	-0.21	0.03	1.18	123	13.74	115	91	76	0	7	2	0
IL	CHICAGO/O'HARE	35	27	37	15	31	7	0.53	0.02	0.47	1.40	64	31.63	89	90	73	0	5	2	0
	MOLINE	32	24	35	9	28	6	–	–	–	–	–	–	–	97	82	0	7	-	-
	PEORIA	33	28	39	17	31	7	–	–	–	–	–	–	–	91	76	0	6	-	-
	ROCKFORD	31	22	35	8	27	6	0.23	-0.20	0.21	0.86	47	27.09	75	93	74	0	7	2	0
	SPRINGFIELD	36	30	40	22	33	6	1.10	0.52	0.75	1.65	68	30.04	86	91	75	0	4	3	1
IN	EVANSVILLE	43	34	50	23	39	6	1.14	0.35	0.65	1.99	61	47.22	111	93	76	0	2	4	1
	FORT WAYNE	36	29	42	26	33	7	1.15	0.53	0.55	1.72	67	40.91	119	94	79	0	7	3	2
	INDIANAPOLIS	39	32	45	25	36	7	0.76	0.04	0.39	1.30	44	33.02	84	97	80	0	4	3	0
	SOUTH BEND	35	29	37	21	32	5	0.86	0.15	0.51	1.88	64	33.22	86	96	76	0	7	4	1
IA	BURLINGTON	–	–	–	–	–	–	0.08	0.24	–	1.33	75	32.33	90	–	–	-	-	-	-
	CEDAR RAPIDS	–	–	–	–	–	–	0.36	0.06	–	1.06	76	25.98	77	–	–	-	-	-	-
	DES MOINES	32	24	36	14	28	7	–	–	–	–	–	–	–	94	80	0	7	-	-
	DUBUQUE	29	21	32	6	25	6	0.22	-0.17	0.17	0.58	50	29.66	78	93	80	0	7	2	0
	SIOUX CITY	33	20	40	13	26	7	0.09	-0.08	0.07	0.12	17	18.34	71	93	79	0	7	2	0
	WATERLOO	31	21	36	10	26	9	0.09	-0.17	0.09	0.48	41	31.40	94	92	80	0	7	1	0
KS	CONCORDIA	33	24	36	17	29	1	1.36	1.18	0.59	2.17	293	26.26	92	95	82	0	7	5	2
	DODGE CITY	33	21	39	12	27	-4	2.50	2.36	1.75	2.87	495	30.04	140	94	79	0	7	4	1
	GOODLAND	33	20	40	13	26	-2	0.32	0.24	0.19	0.55	153	18.66	103	87	70	0	7	4	0
	TOPEKA	37	29	44	20	33	4	1.59	1.29	0.82	2.76	217	30.93	88	96	79	0	5	3	1

Based on 1961-90 normals

Weather Data for the Week Ending December 27, 1997

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																	TEMP, °F		PRECIP.	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	37	29	42	22	33	2	2.36	2.11	1.21	3.09	289	37.48	128	93	81	0	6	4	3
KY	JACKSON	47	36	57	29	41	5	0.96	-0.02	0.33	1.90	49	48.45	99	97	74	0	2	6	0
	LEXINGTON	45	34	54	25	40	6	1.38	0.50	0.88	2.52	72	58.98	134	96	76	0	3	5	1
	LOUISVILLE	45	37	54	29	41	6	1.40	0.61	0.74	2.33	72	55.96	127	91	72	0	1	5	1
	PADUCAH	45	35	54	23	40	5	1.08	0.05	0.70	2.19	53	50.42	103	96	76	0	3	5	1
LA	BATON ROUGE	64	45	73	33	54	3	5.55	4.28	3.45	6.16	128	68.34	113	98	53	0	0	4	4
	LAKE CHARLES	63	43	70	32	53	1	3.60	2.44	1.64	5.75	131	65.73	121	99	58	0	1	4	3
	NEW ORLEANS	65	48	72	41	56	3	1.88	0.57	0.81	2.60	52	51.69	85	96	55	0	0	4	1
	SHREVEPORT	53	36	61	29	45	-2	2.66	1.75	1.50	5.45	152	68.56	150	97	62	0	2	3	2
ME	CARIBOU	23	5	33	-11	14	2	–	–	–	–	–	–	–	90	74	0	7	-	-
	PORTLAND	36	23	46	11	30	6	1.08	0.12	0.64	1.45	36	36.30	83	91	60	0	6	2	1
MD	BALTIMORE	46	31	56	25	39	4	1.36	0.60	0.41	1.79	59	38.09	94	92	61	0	5	4	0
MA	BOSTON	38	29	47	19	34	2	1.09	0.21	0.76	1.58	45	31.35	76	90	60	0	4	4	1
	WORCESTER	34	24	42	16	29	4	–	–	–	–	–	–	–	89	62	0	7	-	-
MI	ALPENA	33	25	35	6	29	8	0.18	-0.26	0.08	0.52	29	28.88	101	86	67	0	7	4	0
	GRAND RAPIDS	33	27	37	14	30	5	0.27	-0.32	0.20	0.83	33	29.45	82	95	73	0	7	4	0
	HOUGHTON LAKE	31	24	34	5	28	8	0.12	-0.29	0.06	0.30	17	26.05	93	90	70	0	7	3	0
	LANSING	33	26	34	13	29	5	0.43	-0.05	0.26	0.90	43	26.71	88	93	75	0	7	5	0
	MARQUETTE	–	–	–	–	–	–	0.12	-0.44	–	1.89	83	32.39	93	–	–	-	-	-	-
	MUSKEGON	34	28	36	16	30	4	0.38	-0.28	0.34	0.94	35	26.15	81	91	70	0	7	4	0
MN	DULUTH	27	14	33	0	21	11	–	–	–	–	–	–	–	90	68	0	7	-	-
	INT'L FALLS	29	9	34	-7	19	15	0.00	-0.19	0.00	0.10	14	18.81	78	91	58	0	7	0	0
	MINNEAPOLIS	31	19	35	6	25	10	0.02	-0.20	0.02	0.14	15	34.28	122	86	65	0	7	1	0
	ROCHESTER	28	17	35	7	23	9	–	–	–	–	–	–	–	92	76	0	7	-	-
	ST. CLOUD	29	16	32	4	22	11	0.00	-0.17	0.00	0.07	10	24.43	89	93	72	0	7	0	0
MS	JACKSON	56	39	69	26	48	2	4.43	3.08	2.56	5.54	108	58.44	107	97	64	0	1	5	3
	MERIDIAN	58	39	67	31	48	1	3.74	2.35	1.14	4.56	86	56.07	98	98	63	0	1	5	3
	TUPELO	51	37	61	27	44	3	2.47	1.08	0.92	3.51	65	63.63	115	95	66	0	1	5	3
MO	COLUMBIA	37	29	41	21	33	4	1.16	0.66	0.59	1.97	90	37.32	98	94	76	0	6	4	1
	KANSAS CITY	36	29	39	18	32	5	–	–	–	–	–	–	–	93	78	0	5	-	-
	SAINT LOUIS	39	32	41	25	35	4	1.29	0.66	0.59	1.93	71	31.38	84	94	78	0	3	4	1
	SPRINGFIELD	39	31	41	20	35	2	1.68	1.03	0.65	3.32	117	38.65	91	97	84	0	3	4	2
MT	BILLINGS	35	21	38	16	28	4	0.00	-0.19	0.00	0.42	63	15.42	103	70	48	0	7	0	0
	BUTTE	25	-3	36	-12	11	-5	–	–	–	–	–	–	–	87	55	0	7	-	-
	GLASGOW	36	16	42	11	27	15	0.01	-0.07	0.01	0.01	3	11.72	108	84	45	0	7	1	0
	GREAT FALLS	36	20	40	15	28	6	0.00	-0.19	0.00	0.30	42	14.24	94	88	38	0	7	0	0
	KALISPELL	30	20	34	12	25	3	0.12	-0.29	0.07	0.39	26	17.37	107	93	68	0	7	2	0
	MILES CITY	41	17	45	9	29	12	0.01	-0.13	0.01	0.03	6	10.47	75	81	35	0	7	1	0
	MISSOULA	29	18	37	12	24	2	0.02	-0.26	0.02	0.35	35	14.76	111	87	63	0	7	1	0
NE	GRAND ISLAND	34	21	39	18	27	4	0.21	0.07	0.09	0.24	38	28.94	116	91	75	0	7	4	0
	LINCOLN	34	21	38	12	27	4	–	–	–	–	–	–	–	97	79	0	7	-	-
	NORFOLK	32	18	38	8	25	5	0.20	0.05	0.16	0.28	42	20.08	80	91	76	0	7	2	0
	NORTH PLATTE	37	14	43	7	25	3	0.06	-0.04	0.04	0.14	33	17.54	91	92	56	0	7	2	0
	OMAHA	34	24	38	17	29	7	0.11	-0.10	–	0.49	54	30.41	102	92	80	0	7	3	0
	SCOTTSBLUFF	37	15	44	11	26	1	0.18	0.06	0.09	0.30	59	20.33	134	86	48	0	7	2	0
	VALENTINE	39	18	46	8	28	8	0.00	-0.08	0.00	0.04	12	22.07	122	83	48	0	7	0	0
NV	ELY	28	3	41	-7	16	-9	–	–	–	–	–	–	–	86	49	0	7	-	-
	LAS VEGAS	51	34	55	27	43	-2	0.00	-0.08	0.00	0.10	31	3.82	95	41	22	0	2	0	0
	RENO	37	15	45	10	26	-6	0.11	-0.11	0.05	0.72	85	7.89	107	85	45	0	7	3	0
	WINNEMUCCA	35	13	39	11	24	-4	–	–	–	–	–	–	–	85	68	0	3	-	-
NH	CONCORD	35	22	43	12	28	7	1.71	1.04	1.13	1.96	70	33.98	94	83	55	0	7	2	2
NJ	NEWARK	43	32	52	21	38	4	1.77	1.01	0.76	2.61	86	40.77	94	83	59	0	2	5	1
NM	ALBUQUERQUE	33	21	37	13	27	-7	0.05	-0.06	0.05	0.84	195	12.26	140	90	65	0	7	1	0
NY	ALBANY	34	23	40	11	29	5	0.84	0.21	0.46	1.05	41	33.54	93	94	64	0	6	4	0
	BINGHAMTON	33	24	41	9	28	4	0.61	-0.04	0.19	1.65	63	30.31	83	94	73	0	7	4	0
	BUFFALO	37	28	43	20	33	6	1.15	0.36	0.28	2.57	79	40.76	107	92	68	0	5	6	0
	ROCHESTER	37	28	44	16	32	6	0.58	-0.01	0.19	1.83	76	33.79	107	93	71	0	5	7	0
	SYRACUSE	35	25	44	11	30	5	1.03	0.36	0.33	2.27	80	30.74	80	89	67	0	6	5	0
NC	ASHEVILLE	49	35	57	28	42	4	–	–	–	–	–	–	–	98	73	0	2	-	-
	CHARLOTTE	53	40	62	32	46	6	4.06	3.26	1.37	5.08	168	49.73	117	91	69	0	1	6	3
	GREENSBORO	48	35	56	31	41	3	1.80	1.03	0.59	2.35	80	39.62	94	97	74	0	2	5	1
	HATTERAS	56	45	64	40	50	3	4.07	3.03	1.97	4.84	124	53.97	98	98	87	0	0	5	3
	RALEIGH	51	37	59	32	44	3	2.53	1.79	0.78	3.25	116	41.31	101	97	74	0	1	6	2
	WILMINGTON	59	42	72	38	50	4	–	–	–	–	–	–	–	95	71	0	0	-	-
ND	BISMARCK	38	19	44	11	29	17	0.01	-0.10	0.01	0.09	21	14.90	97	86	54	0	7	1	0
	DICKINSON	39	18	43	13	28	14	0.02	-0.06	0.02	0.04	13	16.07	100	87	43	0	7	1	0
	FARGO	31	15	34	10	23	14	–	–	–	–	–	–	–	89	70	0	7	-	-
	GRAND FORKS	34	16	39	13	25	18	–	–	–	–	–	–	–	91	68	0	7	-	-
	JAMESTOWN	34	20	38	15	27	17	0.00	-0.11	0.00	0.23	53	20.60	122	90	65	0	7	0	0
	WILLISTON	38	16	39	12	26	16	0.00	-0.14	0.00	0.00	0	11.75	86	86	51	0	7	0	0
OH	AKRON-CANTON	39	30	45	25	34	6	0.54	-0.09	0.37	1.95	75	32.35	89	95	76	0	5	5	0
	CINCINNATI	43	33	54	22	38	7	1.44	0.78	0.91	2.51	90	39.87	97	96	80	0	2	4	1
	CLEVELAND	41	32	48	28	36	8	0.80	0.14	0.37	2.14	78	35.07	97	90	73	0	4	5	0
	COLUMBUS	43	33	50	28	38	9	0.86	0.25	0.43	1.96	77	37.54	99	94	76	0	2	3	0
	DAYTON	41	32	49	26	36	7	1.12	0.49	0.81	2.12	82	31.21	86	92	76	0	4	4	1
	MANSFIELD	39	30	46	25	34	7	–	–	–	–	–	–	–	92	75	0	6	-	-

Based on 1961-90 normals

Weather Data for the Week Ending December 27, 1997

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																	TEMP, °F		PRECIP.	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	36	30	42	27	33	8	1.00	0.38	0.61	2.00	77	38.80	119	94	74	0	6	4	1
	YOUNGSTOWN	39	31	45	26	35	8	0.84	0.21	0.55	2.24	86	33.21	90	93	73	0	4	4	1
OK	OKLAHOMA CITY	41	33	48	24	37	-1	1.52	1.23	1.00	2.01	162	27.02	82	92	72	0	2	3	1
	TULSA	43	34	47	25	38	2	3.12	2.89	1.60	4.25	220	41.46	103	94	70	0	2	3	2
OR	ASTORIA	47	33	50	30	40	-2	–	–	–	–	–	–	–	100	83	0	3	-	-
	BURNS	32	9	39	5	20	-3	0.03	-0.22	0.02	0.89	86	9.89	101	91	58	0	7	2	0
	EUGENE	43	34	50	29	38	-2	0.25	-1.67	0.18	2.41	32	38.84	80	90	76	0	2	3	0
	MEDFORD	40	27	47	21	33	-4	–	–	–	–	–	–	–	95	70	0	6	-	-
	PENDLETON	39	27	46	23	33	0	–	–	–	–	–	–	–	91	73	0	7	-	-
	PORTLAND	43	34	47	29	38	-1	–	–	–	–	–	–	–	98	82	0	3	-	-
	SALEM	43	34	49	27	38	-1	–	–	–	–	–	–	–	97	81	0	3	-	-
PA	ALLENTOWN	40	27	51	14	33	4	1.21	0.45	0.47	1.72	56	37.87	89	88	63	0	5	5	0
	ERIE	39	31	46	23	35	6	–	–	–	–	–	–	–	92	70	0	3	-	-
	MIDDLETOWN	42	30	52	22	36	5	1.23	0.53	0.36	1.81	56	31.92	80	89	59	0	5	5	0
	PHILADELPHIA	45	33	55	25	39	6	1.81	0.86	0.47	2.30	78	31.70	77	83	52	0	3	5	0
	PITTSBURGH	41	33	48	28	37	8	0.57	-0.09	0.27	1.19	47	34.45	95	91	70	0	3	5	0
	SCRANTON	37	27	42	15	32	4	0.56	0.02	0.28	1.45	65	26.95	76	91	66	0	5	5	0
	WILLIAMSPORT	38	28	42	19	33	4	0.69	0.05	0.28	1.14	42	29.31	73	92	67	0	5	5	0
RI	PROVIDENCE	39	27	51	16	33	3	1.64	0.67	0.75	2.37	62	39.63	88	90	66	0	6	3	1
SC	BEAUFORT	62	46	71	40	54	4	–	–	–	–	–	–	–	92	75	0	0	-	-
	CHARLESTON	63	45	72	41	54	4	–	–	–	–	–	–	–	97	71	0	0	-	-
	COLUMBIA	57	42	65	36	50	4	–	–	–	–	–	–	–	98	69	0	0	-	-
	GREENVILLE	52	40	61	33	46	4	–	–	–	–	–	–	–	96	69	0	0	-	-
SD	ABERDEEN	35	17	39	10	26	14	0.00	-0.08	0.00	0.19	54	19.38	105	92	62	0	7	0	0
	HURON	37	19	41	12	28	13	0.00	-0.10	0.00	0.13	31	24.62	123	89	59	0	7	0	0
	RAPID CITY	40	17	44	14	29	6	–	–	–	–	–	–	–	77	37	0	7	-	-
	SIOUX FALLS	32	16	36	7	24	8	0.07	-0.07	0.07	0.23	37	20.25	85	93	74	0	7	1	0
TN	BRISTOL	51	37	62	30	44	7	1.03	0.26	0.39	2.07	70	41.46	103	94	66	0	2	5	0
	CHATTANOOGA	60	40	64	32	45	6	2.08	0.91	1.06	3.12	89	56.11	108	100	73	0	1	5	2
	KNOXVILLE	52	39	62	33	46	7	1.34	0.30	0.50	2.29	58	51.93	112	97	71	0	0	5	1
	MEMPHIS	47	39	56	33	43	1	2.43	1.20	1.20	3.55	70	70.15	136	92	68	0	0	3	2
	NASHVILLE	49	36	61	25	43	5	1.11	0.09	0.54	1.96	49	53.95	115	86	66	0	1	5	1
TX	ABILENE	46	31	62	27	39	-5	0.76	0.54	0.51	3.15	350	27.07	112	98	68	0	5	3	1
	AMARILLO	32	23	34	12	27	-8	1.20	1.12	0.59	2.13	592	24.97	128	94	62	0	7	5	1
	AUSTIN	57	41	69	35	49	-1	0.82	0.41	0.42	4.40	265	47.20	149	90	53	0	0	2	0
	BEAUMONT	64	44	70	35	54	1	3.36	2.27	1.93	5.90	142	51.71	91	97	58	0	0	4	2
	BROWNSVILLE	71	50	79	36	61	0	0.00	-0.30	0.00	0.26	24	36.00	136	89	58	0	0	0	0
	CORPUS CHRISTI	69	43	81	31	56	-1	0.05	-0.25	0.02	0.22	20	36.19	121	91	52	0	1	3	0
	DEL RIO	59	39	66	31	49	-2	0.27	0.13	0.20	0.62	115	23.17	127	89	51	0	1	4	0
	EL PASO	45	30	54	19	38	-5	0.72	0.58	0.42	1.42	273	9.67	109	90	61	0	3	5	0
	FORT WORTH	49	36	55	30	43	-3	1.38	0.97	0.87	6.94	428	44.97	134	96	63	0	2	5	1
	GALVESTON	62	48	67	38	55	1	–	–	–	–	–	–	–	94	64	0	0	-	-
	HOUSTON	61	41	71	30	51	-1	0.66	-0.11	0.61	5.55	184	59.87	131	96	57	0	1	2	1
	LUBBOCK	37	24	42	12	31	-9	0.52	0.41	0.27	1.77	377	22.69	122	96	77	0	7	2	0
	MIDLAND	47	29	58	24	38	-5	–	–	–	–	–	–	–	91	58	0	6	-	-
	SAN ANGELO	50	32	60	27	41	-3	0.62	0.45	0.39	1.39	204	23.38	116	95	60	0	5	3	0
	SAN ANTONIO	60	39	71	32	50	-1	0.72	0.42	0.56	3.57	270	33.97	110	89	48	0	1	2	1
	VICTORIA	64	42	76	34	53	-1	0.88	0.42	0.65	1.64	92	67.10	180	94	56	0	0	4	1
	WACO	53	37	59	31	45	-2	0.52	0.13	0.33	9.85	604	43.41	137	95	63	0	1	2	0
	WICHITA FALLS	43	32	50	26	38	-3	1.88	1.60	--	4.12	368	23.79	83	96	69	0	4	-	-
UT	SALT LAKE CITY	31	13	34	8	23	-5	0.23	-0.07	0.12	0.78	62	17.08	106	90	61	0	7	2	0
VT	BURLINGTON	31	19	38	4	25	5	0.59	0.09	0.39	0.98	46	29.92	87	91	62	0	6	4	0
VA	LYNCHBURG	48	34	59	31	41	4	1.35	0.63	0.56	2.30	81	35.14	87	96	60	0	3	6	1
	NORFOLK	55	40	65	36	48	6	1.70	0.94	0.76	2.32	83	37.08	84	98	71	0	0	4	2
	RICHMOND	50	36	60	32	43	5	1.53	0.79	0.66	2.18	76	33.96	79	97	63	0	1	4	1
	ROANOKE	47	35	59	31	41	4	1.30	0.65	0.45	1.70	65	34.94	86	93	61	0	2	4	0
	WASH/DULLES	44	32	52	26	38	5	1.15	0.45	0.39	1.73	62	35.55	89	98	76	0	4	4	0
WA	HANFORD	39	25	50	19	32	–	0.00	-0.25	0.00	0.31	33	8.39	103	92	67	0	7	0	0
	OLYMPIA	42	30	44	25	36	-2	0.56	-1.27	0.25	5.80	82	55.66	133	100	86	0	5	4	0
	QUILLAYUTE	45	33	48	29	39	-1	2.79	-0.67	1.14	11.38	84	127.70	124	99	84	0	3	5	3
	SEATTLE-TACOMA	43	32	46	29	38	-2	–	–	–	–	–	–	–	95	76	0	4	-	-
	SPOKANE	30	16	33	11	23	-4	–	–	–	–	–	–	–	98	83	0	7	-	-
	YAKIMA	35	21	45	17	28	-1	0.00	-0.33	0.00	0.19	15	6.88	88	92	67	0	7	0	0
WV	BECKLEY	42	32	47	25	37	6	0.94	0.22	0.43	1.60	57	37.19	92	99	75	0	3	6	0
	CHARLESTON	47	36	54	29	42	7	0.89	0.15	0.34	1.49	50	40.66	97	94	69	0	3	7	0
	ELKINS	44	32	49	21	38	8	0.66	0.09	0.33	1.97	61	41.45	93	91	69	0	4	6	0
	HUNTINGTON	47	36	56	30	42	7	1.03	0.29	0.43	1.47	50	37.87	92	93	71	0	2	7	0
WI	EAU CLAIRE	31	16	36	3	23	9	0.02	-0.22	0.02	0.18	19	29.46	93	90	66	0	7	1	0
	GREEN BAY	32	18	35	13	25	8	–	–	–	–	–	–	–	86	65	0	7	-	-
	MADISON	31	21	34	8	26	7	–	–	–	–	–	–	–	91	74	0	7	-	-
	MILWAUKEE	32	26	37	16	29	7	–	–	–	–	–	–	–	91	74	0	7	-	-
WY	CASPER	25	8	30	0	17	-8	0.01	-0.13	0.01	0.52	90	11.79	95	84	64	0	7	1	0
	CHEYENNE	32	17	43	15	24	-2	–	–	–	–	–	–	–	81	47	0	7	-	-
	LANDER	17	-3	29	-8	7	-12	–	–	–	–	–	–	–	90	72	0	7	-	-
	SHERIDAN	34	10	47	1	22	1	0.16	-0.01	0.16	0.71	111	15.45	107	85	59	0	7	1	0

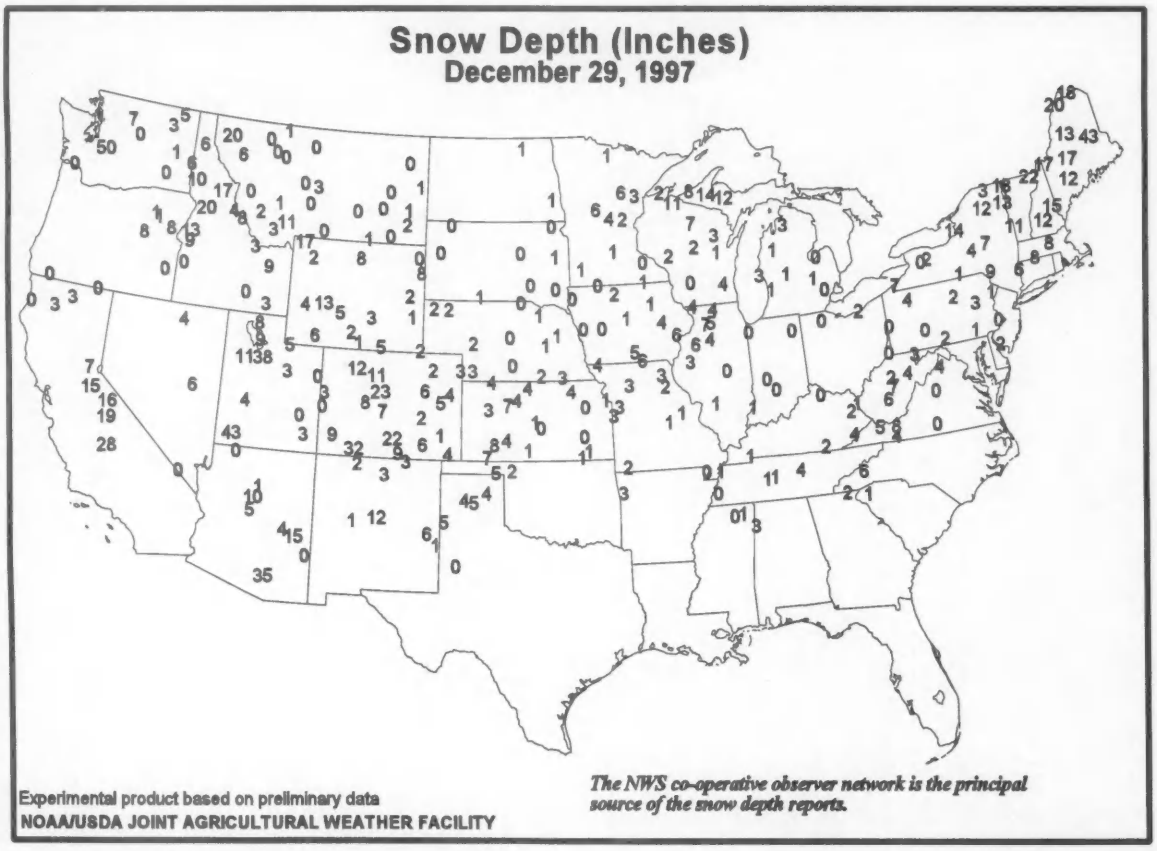
NOTICE: Due to computational problems at the Climate Prediction Center (CPC), precipitation totals from several dozen locations remain erroneous. As a result, we have blanked out the values for these locations in the U.S. city table. CPC should have the correct data for next week's publication.

National Agricultural Summary

December 22 - 28, 1997

HIGHLIGHTS

Fieldwork was again limited in the Southeast as storms moved across the southern United States bringing a mixture of precipitation. Heavy snowfall was recorded from Arizona to New England, providing good snow cover to winter wheat in the southern Great Plains. Continued dry weather in the northern Plains and Rocky Mountain States was stressing winter wheat and left the crop without snow cover. Above-normal temperatures in the northern Plains and the eastern half of the country were beneficial to livestock. In Florida, virtually all citrus groves were in excellent condition as a result of moist soils and cool nighttime temperatures. Continued wet weather has caused problems with fruit harvesting and condition. Most vegetable harvesting proceeded on schedule until the end of the week. In California's San Joaquin and Sacramento Valleys, field activities gradually resumed as soils dried from earlier rains.


Snow Depth (Inches)
December 29, 1997
Experimental product based on preliminary data
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
The NWS co-operative observer network is the principal source of the snow depth reports.

International Weather and Crop Summary

December 21 - 27, 1997

HIGHLIGHTS

FSU-WESTERN: A warming trend improved overwintering conditions for dormant winter grains.

EUROPE: Mild weather and widespread precipitation favored winter grain areas.

NORTHWESTERN AFRICA: Showers maintained favorable moisture conditions for winter grains in northern Morocco, Algeria, and Tunisia.

SOUTH AFRICA: Showers eased prolonged dryness in western corn areas and maintained favorable moisture conditions in the east.

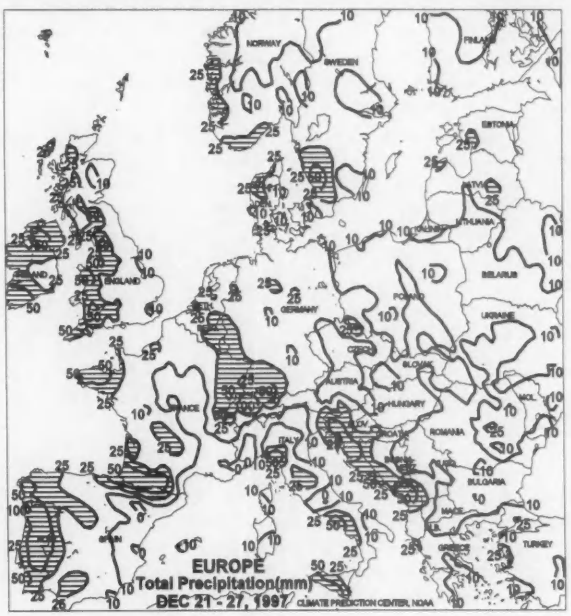
SOUTH ASIA: In northern India, unseasonably cold weather slowed summer crop drying and winter grain development.

AUSTRALIA: Rain continued to favor sorghum and cotton development in the east, while dry weather in southeastern and western Australia aided winter wheat harvesting.

SOUTHEAST ASIA: Showers favored main-season rice in Java, but more rain is needed in southern Sumatra. Below-normal rainfall worsened drought across the northern Philippines.

EASTERN ASIA: Winter wheat remained dormant across the North China Plain, while rain increased moisture supplies across southern China.

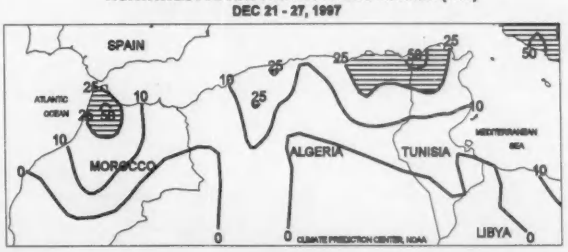
SOUTH AMERICA: Showers continued to favor summer crop development across the region. In Argentina, mostly dry weather aided winter wheat harvesting in southern Buenos Aires.



EUROPE

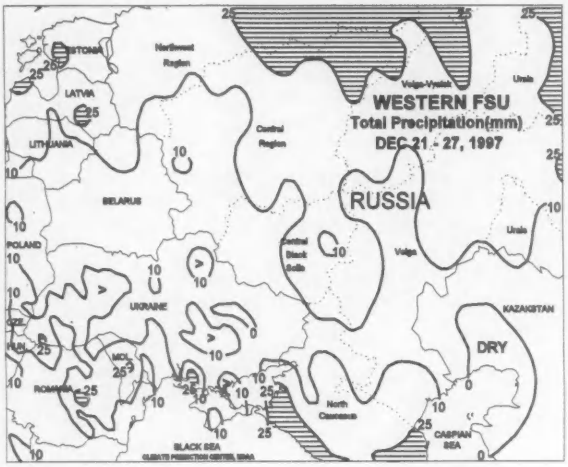
A strong westerly flow of maritime air spread eastward across the region, bringing warmer weather and widespread precipitation. The mild weather in eastern Europe improved overwintering conditions for winter grain following last week's bitterly cold weather. By week's end, most winter grain areas in eastern Europe lacked a protective snow cover. Precipitation amounts generally ranged from 10 to 25 mm over most of Europe. Greatest amounts of moisture (25-78 mm) fell in Portugal and southern Spain, keeping soils waterlogged and likely causing some additional flooding. Weekly temperatures averaged 3 to 5 degrees C above normal over the northern half of Europe and 3 to 8 degrees C above normal across the south.

NORTHWEST AFRICA TOTAL PRECIPITATION (mm)
DEC 21 - 27, 1997



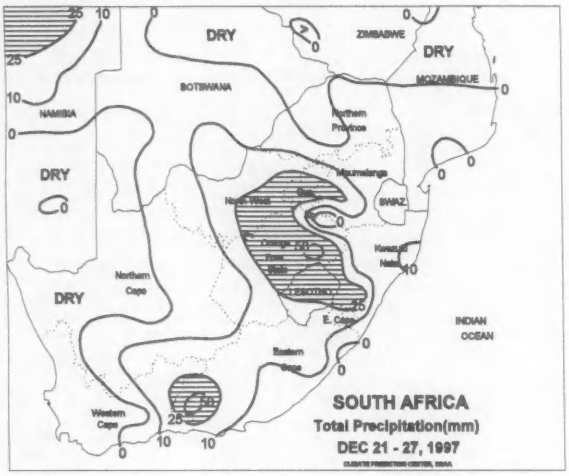
NORTHWESTERN AFRICA

Winter grains were in the vegetative stage over most of the region. Light to moderate showers (10-40 mm, with local amounts in excess of 40 mm) spread from northern Morocco eastward through winter grain areas in Algeria and Tunisia, maintaining favorable moisture conditions for crop development. Dry weather returned to winter grain areas in southern Morocco following last week's beneficial rainfall. Weekly temperatures averaged 1 to 3 degrees C above normal over Morocco, Algeria, and Tunisia, promoting crop growth.



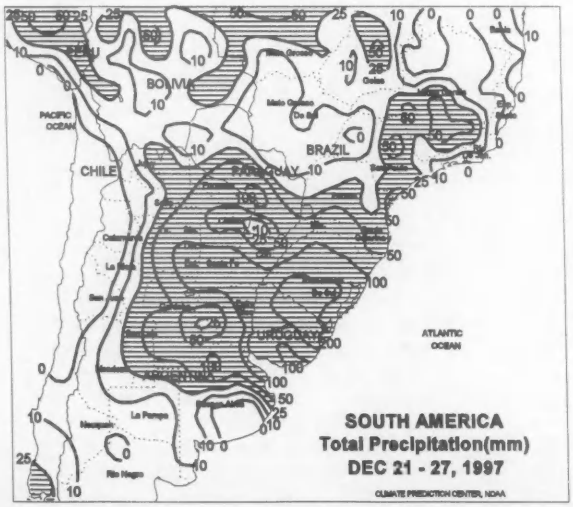
FSU-WESTERN

As the week began, bitterly cold air continued to stress winter grain areas in Russia, northeastern Ukraine, and eastern Belarus where minimum temperatures ranged from -15 to -30 degrees C. At mid-week, however, a warming trend spread eastward over the region, improving overwintering conditions for winter grains. Precipitation changed from snow to rain in the west and south, melting protective snow cover. By week's end, most winter grain areas in the Baltic States, Belarus, western and southern Ukraine, and North Caucasus, Russia were snow free. On December 27, daytime highs rose above freezing as far east as the southern Volga Vyatsk and upper Volga Valley in Russia. Precipitation amounts ranged from 8 to 38 mm in the Baltics and most of Russia, 2 to 10 mm in Belarus, and 5 to 25 mm in Ukraine. Weekly temperatures averaged 1 to 3 degrees C above normal in western areas and 1 to 4 degrees C below normal in the east.



SOUTH AFRICA

Light to moderate showers fell over most corn growing areas during the week. Greatest amounts of rain (25-50 mm) fell from the eastern Orange Free State northward through western Mpumalanga. The precipitation in these areas was accompanied by seasonable temperatures, maintaining generally favorable conditions for corn development. Light showers (8-16 mm) helped to ease prolonged dryness in western corn growing areas. However, periodic hot weather (maximum temperatures ranging from 34 to 37 degrees C) maintained high evaporation rates, reducing the beneficial effects of the moisture on crop development.

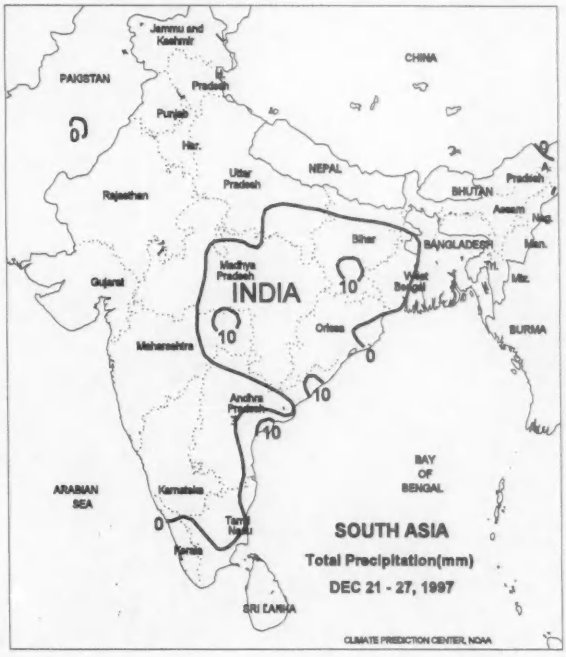


SOUTH AMERICA

In Argentina, showers (20-100 mm) boosted soil moisture across the main summer crop area. Mostly dry weather (scattered rain less than 20 mm) favored winter wheat harvesting across central and southern Buenos Aires. In northern Argentina, moderate showers (10-50 mm) aided cotton development. Temperatures averaged 1 to 2 degrees C below normal across the region, favoring summer crop development. In southern Brazil, widespread showers (70-100 mm) covered Rio Grande do Sul, with lesser amounts (15-30 mm) in Parana. Variable showers (10-70 mm) prevailed in the center-west states of Mato Grosso do Sul, Goias, and Mato Grosso. Temperatures averaged 3 to 6 degrees C above normal in southern Brazil, increasing evaporation rates.

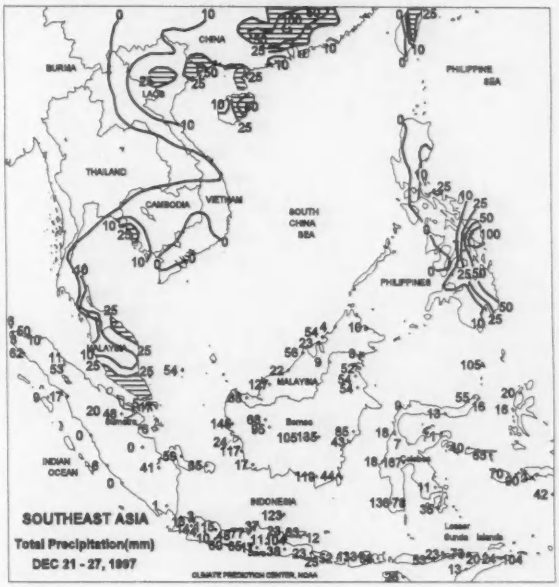
SOUTH ASIA

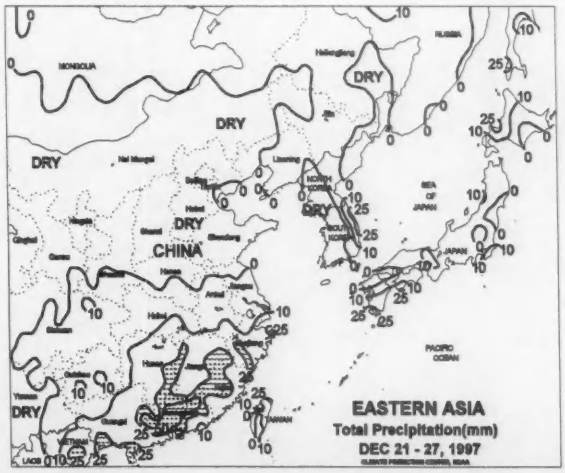
In northern India (Madhya Pradesh northward), unseasonably cold weather (temperatures 2-6 degrees below normal with lows ranging from 2-8 degrees C) slowed both summer crop drying and winter grain development. Mostly dry weather (less than 15 mm) throughout the country favored maturing summer crops. Warm weather (2-4 degrees C above normal) further aided summer crop maturation across the south.



SOUTHEAST ASIA

Showers (10-100 mm) covered most of Java, favoring vegetative main-season rice. However, scattered showers (10-40 mm) prevailed across southern Sumatra, where more rain is needed. In the Philippines, drought worsened across Luzon due to below normal rainfall (less than 25 mm). Only the east-central Islands received near normal rainfall (50-115 mm) for the week. Hot, dry weather (3-6 degrees C above normal) prevailed across Thailand, aiding main-season rice harvesting, but reducing moisture for second-season crops. Light showers (less than 25 mm) were reported across the oil palm regions of peninsular Malaysia and Thailand.





EASTERN ASIA

Winter wheat remained dormant across the North China Plain despite warm weather (temperatures averaged 2-4 C degrees C above normal). Rainfall (10-40 mm) was confined to the Yangtze Valley and southern China, aiding winter grains and oilseeds and increasing winter moisture reserves.

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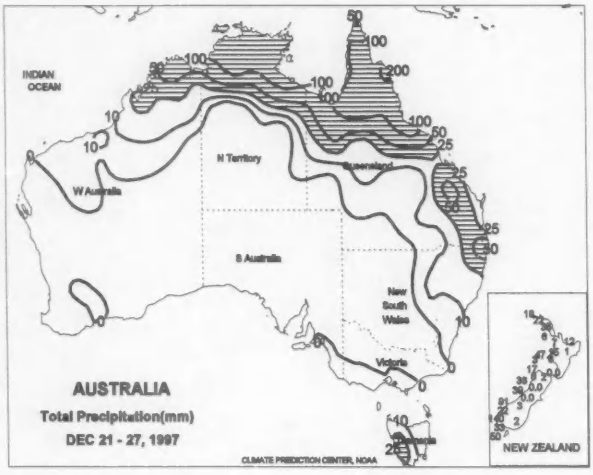

AUSTRALIA

Beneficial showers (5-30 mm) continued across the major sorghum and cotton areas of eastern Australia. The rain helped to offset increased crop water use due to warm weather (temperatures 1-2 degrees C above normal). Widespread heavy showers (75-150 mm) slowed sugarcane fieldwork across northeastern Queensland. Dry weather aided winter wheat harvesting in the southeastern and western wheat areas. In New Zealand, light, scattered rain (less than 10 mm) was reported across the main grazing and pasture areas.

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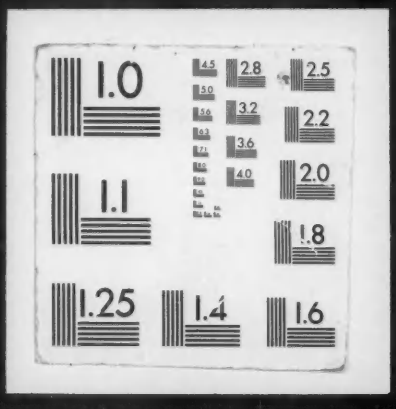
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